

**CLAIMS**

What is claimed is:

1. A method for managing a distributed data processing  
5 system, the method comprising:  
    dynamically discovering endpoints within the  
distributed data processing system;  
    determining that a first discovered endpoint  
communicates with a second discovered endpoint;  
10     monitoring a status of the first discovered  
endpoint;  
    updating a status indicator for the first discovered  
endpoint; and  
    updating a status indicator for the second  
15 discovered endpoint based on a communication history  
between the first discovered endpoint and the second  
discovered endpoint.
2. The method of claim 1 further comprising:  
20     retrieving an SNMP table from the first discovered  
endpoint;  
    searching the SNMP table for an address associated  
with the second discovered endpoint; and  
    associating the first discovered endpoint with the  
25 second discovered endpoint in response to finding the  
address associated with the second discovered endpoint in  
the SNMP table.

AUS9-2000-0703-US1

3. A method for managing a distributed data processing system, the method comprising:

configuring monitoring parameters for network interface cards within the distributed data processing system using a network management framework;  
dynamically discovering a set of discovered endpoints within the distributed data processing system;  
designating a plurality of discovered endpoints as mission critical endpoints; and

associating a mission critical twin endpoint with each mission critical endpoint, wherein a mission critical twin endpoint is a discovered endpoint that has a communication history with a mission critical endpoint with which the mission critical twin endpoint is being associated.

4. The method of claim 3 further comprising:  
retrieving an SNMP table from a discovered endpoint;  
searching the SNMP table for an address associated with a mission critical endpoint; and  
associating the discovered endpoint with the mission critical endpoint in response to finding the address associated with the mission critical endpoint in the SNMP table.

5. The method of claim 3 further comprising:  
choosing mission critical twin endpoints from a subset of discovered endpoints which have not been previously specified as twin endpoints.

AUS9-2000-0703-US1

6. The method of claim 5 further comprising:

selecting an endpoint in the subset of discovered endpoints that has a most significant communication history with a particular mission critical endpoint; and

5       creating a mission critical twin association between the selected endpoint and the particular mission critical endpoint in response to a determination of the most significant communication history.

10       7. The method of claim 6 further comprising:

retrieving an SNMP table from a discovered endpoint in the subset of discovered endpoints;

searching the SNMP table for an address associated with the particular mission critical endpoint;

15       in response to finding the address associated with the particular mission critical endpoint in the SNMP table, obtaining a value from the SNMP table to be compared with values obtained from other retrieved SNMP tables; and

20       determining the most significant communication history based on a comparison of the values obtained from the retrieved SNMP tables.

AUS9-2000-0703-US1

8. An apparatus for managing a distributed data processing system, the apparatus comprising:

discovering means for dynamically discovering endpoints within the distributed data processing system;

5 determining means for determining that a first discovered endpoint communicates with a second discovered endpoint;

monitoring means for monitoring a status of the first discovered endpoint;

10 first updating means for updating a status indicator for the first discovered endpoint; and

second updating means for updating a status indicator for the second discovered endpoint based on a communication history between the first discovered  
15 endpoint and the second discovered endpoint.

9. The apparatus of claim 8 further comprising:

retrieving means for retrieving an SNMP table from the first discovered endpoint;

20 searching means for searching the SNMP table for an address associated with the second discovered endpoint; and

associating means for associating the first discovered endpoint with the second discovered endpoint  
25 in response to finding the address associated with the second discovered endpoint in the SNMP table.

AUS9-2000-0703-US1

10. A apparatus for managing a distributed data processing system, the apparatus comprising:

5 configuring means for configuring monitoring parameters for network interface cards within the distributed data processing system using a network management framework;

discovering means for dynamically discovering a set of discovered endpoints within the distributed data processing system;

10 designating means for designating a plurality of discovered endpoints as mission critical endpoints; and

15 first associating means for associating a mission critical twin endpoint with each mission critical endpoint, wherein a mission critical twin endpoint is a discovered endpoint that has a communication history with a mission critical endpoint with which the mission critical twin endpoint is being associated.

11. The apparatus of claim 10 further comprising:

20 first retrieving means for retrieving an SNMP table from a discovered endpoint;

first searching means for searching the SNMP table for an address associated with a mission critical endpoint; and

25 second associating means for associating the discovered endpoint with the mission critical endpoint in response to finding the address associated with the mission critical endpoint in the SNMP table.

AUS9-2000-0703-US1

12. The apparatus of claim 10 further comprising:

first choosing means for choosing mission critical  
twin endpoints from a subset of discovered endpoints  
which have not been previously specified as twin  
5 endpoints.

13. The apparatus of claim 12 further comprising:

first selecting means for selecting an endpoint in  
the subset of discovered endpoints that has a most  
10 significant communication history with a particular  
mission critical endpoint; and

first creating means for creating a mission critical  
twin association between the selected endpoint and the  
particular mission critical endpoint in response to a  
15 determination of the most significant communication  
history.

14. The apparatus of claim 13 further comprising:

second retrieving means for retrieving an SNMP table  
20 from a discovered endpoint in the subset of discovered  
endpoints;

second searching means for searching the SNMP table  
for an address associated with the particular mission  
critical endpoint;

25 first obtaining means for obtaining, in response to  
finding the address associated with the particular  
mission critical endpoint in the SNMP table, a value from  
the SNMP table to be compared with values obtained from  
other retrieved SNMP tables; and

30 determining means for determining the most  
significant communication history based on a comparison  
of the values obtained from the retrieved SNMP tables.

AUS9-2000-0703-US1

15. A computer program product in a computer readable medium for use in a distributed data processing system for managing the distributed data processing system, the computer program product comprising:

- 5        instructions for dynamically discovering endpoints within the distributed data processing system;
- instructions for determining that a first discovered endpoint communicates with a second discovered endpoint;
- instructions for monitoring a status of the first  
10 discovered endpoint;
- instructions for updating a status indicator for the first discovered endpoint; and
- instructions for updating a status indicator for the  
15 second discovered endpoint based on a communication history between the first discovered endpoint and the second discovered endpoint.

16. The computer program product of claim 15 further comprising:

- 20        instructions for retrieving an SNMP table from the first discovered endpoint;
- instructions for searching the SNMP table for an address associated with the second discovered endpoint; and
- 25        instructions for associating the first discovered endpoint with the second discovered endpoint in response to finding the address associated with the second discovered endpoint in the SNMP table.

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AUS9-2000-0703-US1

17. A computer program product in a computer readable medium for use in a distributed data processing system for managing the distributed data processing system, the computer program product comprising:

- 5        instructions for configuring monitoring parameters for network interface cards within the distributed data processing system using a network management framework;
- instructions for dynamically discovering a set of discovered endpoints within the distributed data
- 10    processing system;
- instructions for designating a plurality of discovered endpoints as mission critical endpoints; and
- instructions for associating a mission critical twin endpoint with each mission critical endpoint, wherein a
- 15    mission critical twin endpoint is a discovered endpoint that has a communication history with a mission critical endpoint with which the mission critical twin endpoint is being associated.

- 20    18. The computer program product of claim 17 further comprising:

- instructions for retrieving an SNMP table from a discovered endpoint;
- instructions for searching the SNMP table for an
- 25    address associated with a mission critical endpoint; and
- instructions for associating the discovered endpoint with the mission critical endpoint in response to finding the address associated with the mission critical endpoint in the SNMP table.

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program product of claim 17 further

choosing mission critical twin  
of discovered endpoints which  
specified as twin endpoints.

am product of claim 19 further

for selecting an endpoint in the subset  
endpoints that has a most significant  
history with a particular mission critical

20. and

instructions for creating a mission critical twin  
relation between the selected endpoint and the  
particular mission critical endpoint in response to a  
termination of the most significant communication  
history.

21. The computer program product of claim 20 further  
comprising:

instructions for retrieving an SNMP table from a  
discovered endpoint in the subset of discovered  
endpoints;

instructions for searching the SNMP table for an  
address associated with the particular mission critical  
endpoint;

instructions for obtaining, in response to finding  
the address associated with the particular mission  
critical endpoint in the SNMP table, a value from the  
SNMP table to be compared with values obtained from other  
retrieved SNMP tables; and

AUS9-2000-0703-US1

instructions for determining the most significant communication history based on a comparison of the values obtained from the retrieved SNMP tables.

AUS9-2000-0703-US1

15. A computer program product in a computer readable medium for use in a distributed data processing system for managing the distributed data processing system, the computer program product comprising:

- 5        instructions for dynamically discovering endpoints within the distributed data processing system;
- instructions for determining that a first discovered endpoint communicates with a second discovered endpoint;
- instructions for monitoring a status of the first  
10        discovered endpoint;
- instructions for updating a status indicator for the first discovered endpoint; and
- instructions for updating a status indicator for the second discovered endpoint based on a communication  
15        history between the first discovered endpoint and the second discovered endpoint.

16. The computer program product of claim 15 further comprising:

- 20        instructions for retrieving an SNMP table from the first discovered endpoint;
- instructions for searching the SNMP table for an address associated with the second discovered endpoint; and
- 25        instructions for associating the first discovered endpoint with the second discovered endpoint in response to finding the address associated with the second discovered endpoint in the SNMP table.

AUS9-2000-0703-US1

17. A computer program product in a computer readable medium for use in a distributed data processing system for managing the distributed data processing system, the computer program product comprising:

- 5       instructions for configuring monitoring parameters for network interface cards within the distributed data processing system using a network management framework;
- instructions for dynamically discovering a set of discovered endpoints within the distributed data
- 10   processing system;
- instructions for designating a plurality of discovered endpoints as mission critical endpoints; and
- instructions for associating a mission critical twin endpoint with each mission critical endpoint, wherein a
- 15   mission critical twin endpoint is a discovered endpoint that has a communication history with a mission critical endpoint with which the mission critical twin endpoint is being associated.
- 20   18. The computer program product of claim 17 further comprising:
- instructions for retrieving an SNMP table from a discovered endpoint;
- instructions for searching the SNMP table for an
- 25   address associated with a mission critical endpoint; and
- instructions for associating the discovered endpoint with the mission critical endpoint in response to finding the address associated with the mission critical endpoint in the SNMP table.

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AUS9-2000-0703-US1

19. The computer program product of claim 17 further comprising:

instructions for choosing mission critical twin endpoints from a subset of discovered endpoints which  
5 have not been previously specified as twin endpoints.

20. The computer program product of claim 19 further comprising:

instructions for selecting an endpoint in the subset  
10 of discovered endpoints that has a most significant communication history with a particular mission critical endpoint; and

instructions for creating a mission critical twin association between the selected endpoint and the  
15 particular mission critical endpoint in response to a determination of the most significant communication history.

21. The computer program product of claim 20 further comprising:

instructions for retrieving an SNMP table from a discovered endpoint in the subset of discovered endpoints;

instructions for searching the SNMP table for an  
25 address associated with the particular mission critical endpoint;

instructions for obtaining, in response to finding the address associated with the particular mission critical endpoint in the SNMP table, a value from the  
30 SNMP table to be compared with values obtained from other retrieved SNMP tables; and

AUS9-2000-0703-US1

instructions for determining the most significant communication history based on a comparison of the values obtained from the retrieved SNMP tables.